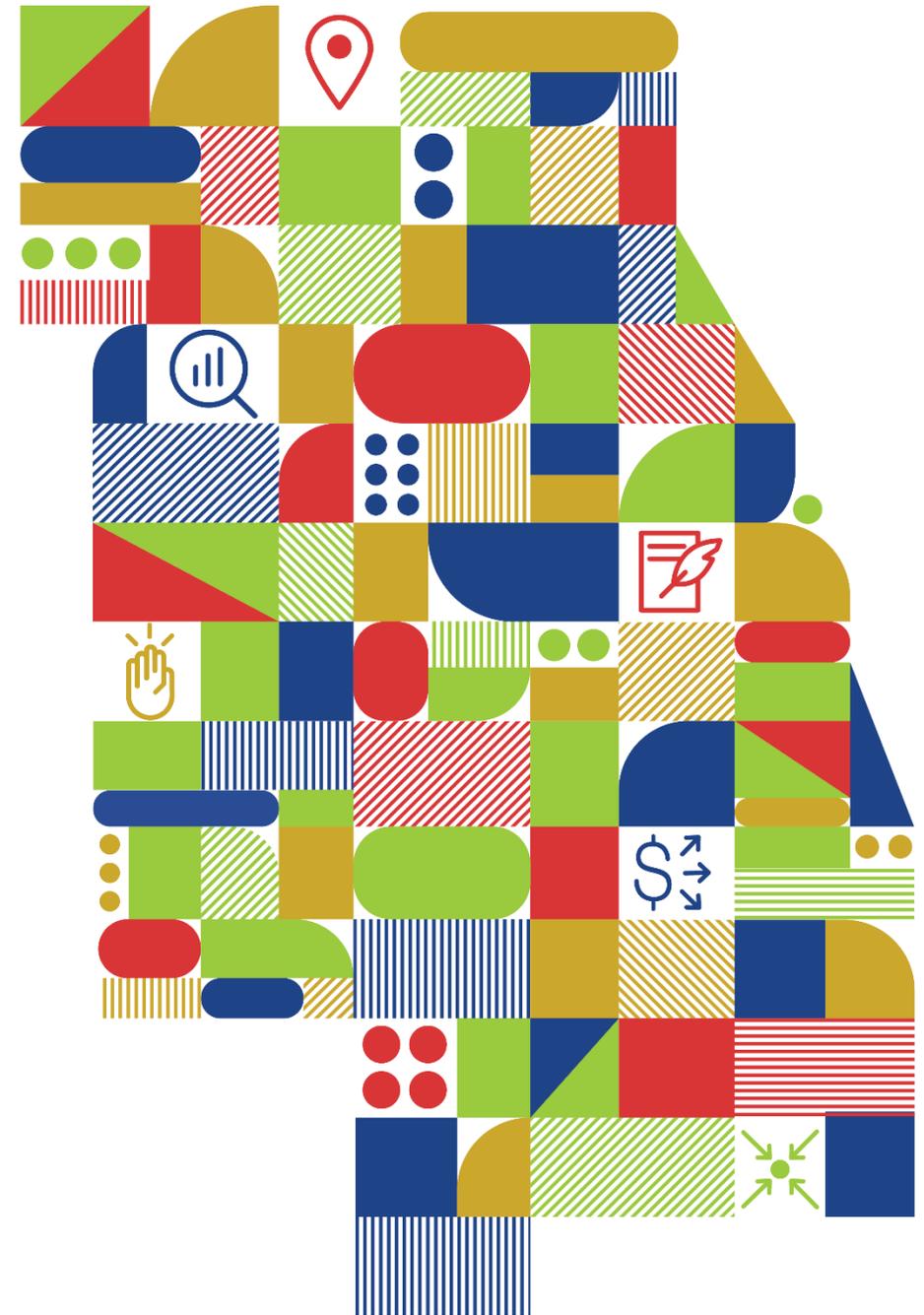




Transportation Climate Mitigation Strategies

November 5, 2020





2015 Regional Emissions by Sector

Project Purpose

Examine potential contributions the region can make toward reducing GHG emissions from the transportation sector.
(Specifically on road transportation)

- Identify pathways for mitigation
- Increase understanding by CMAP staff and partners of GHG impacts of transportation decisions
- Prepare CMAP and the region to respond to future legislation or other initiatives aiming to reduce GHG emissions
- High level quantification of various GHG mitigation strategies

Scope



Past modeling

Figure 2: Gain in mode share at low and high levels of strategy implementation, 2015

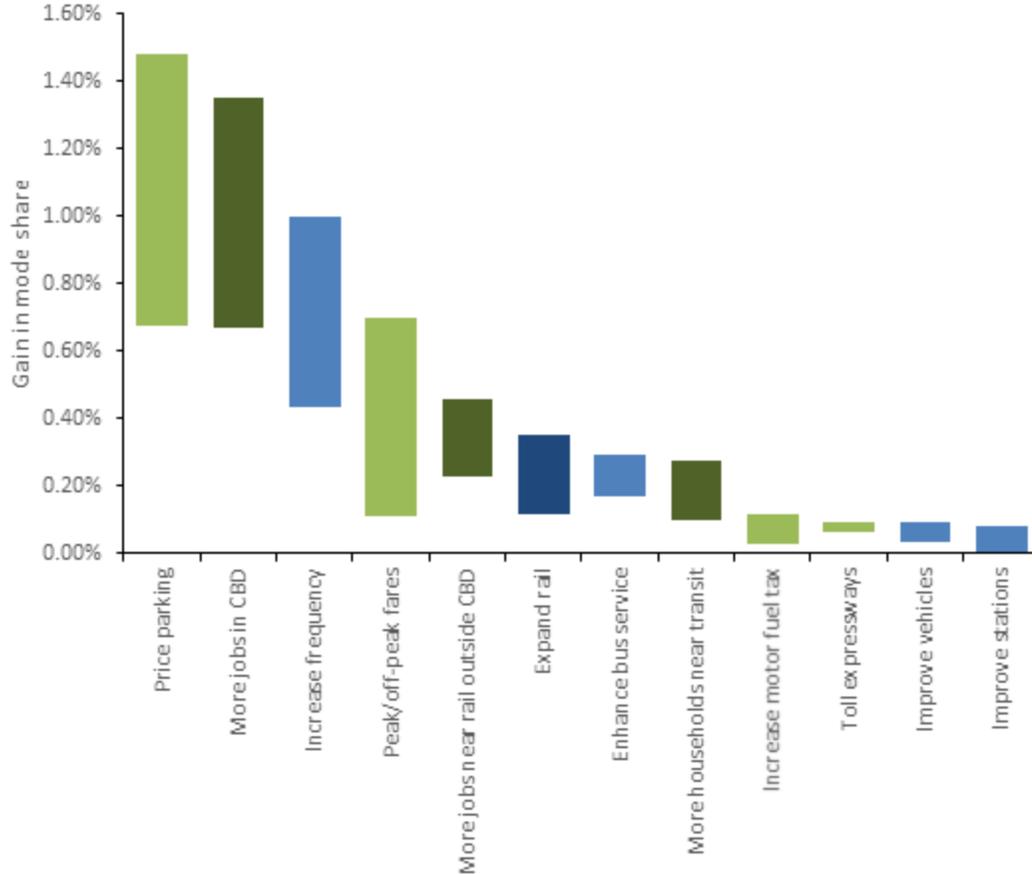
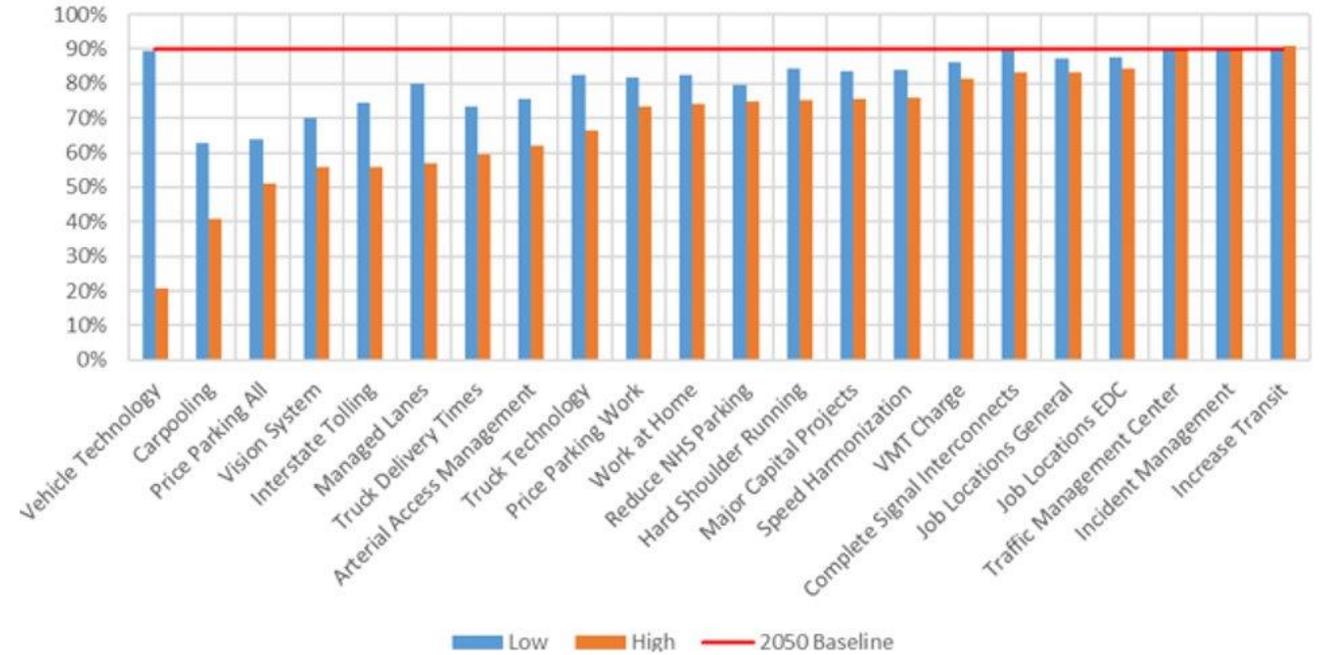


Figure 4: 2050 vehicle hours of travel under congested conditions compared to 2015



Modeling

Socioeconomic forecast

- Population
- Employment
- Location of Pop. & Emp.

Transportation network

- Regionally Significant projects
- Cost (tolls, gas)

Trip based model
(travel behavior)

VHT by vehicle/speed
classification

EPA MOVES
model (pollutant
emissions)

Fleet profile (age, fuel, type)
Environment

Scenarios

Trip Base Model + MOVES

- Transit RSPs
- Highway RSPs
- Increase transit use
- Driving cost
 - Price parking
 - Tolling/ congestion pricing
 - VMT or GHG tax
- Speed harmonization (safety+)
- Congestion reduction technologies
- Increase work from home

MOVES only

- Electrify cars
- Electrify freight
- Electrify transit
- More efficient vehicles (CAFE standards)
- Other alternative fuels

Future Analysis / Out of Scope

- Land use
- Air / Marine
- Electricity source
- Manufacturing / materials

Looking for your input

What would you like to know about potential paths to reducing transportation green house gases?

Are there paths you would like to see modeled?

What information would you like to see for each strategy we examined?

What are future actions for CMAP and partners to pursue? How can CMAP data support those efforts?



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